CLAIMS

1. The use of at least one fragment of an alpha-integrin for producing at least one recombinant protein of interest in a cell, with the exception of a mammalian cell.

2. The use as claimed in claim 1, characterized in that the cell is a prokaryotic cell, particularly a bacterium.

3. The use as claimed in either one of claims 1 and 2, characterized in that the alpha-integrin fragment is a complete amino acid sequence of the alpha-integrin or a partial sequence.

4. The use as claimed in any one of claims 1 to 3, characterized in that the alpha-integrin fragment is a sequence comprising the N-terminal end of the alpha-integrin used.

5. The use as claimed in any one of claims 1 to 4, characterized in that the alpha-integrin is native or mutated.

6. The use as claimed in any one of claims 1 to 5, characterized in that the alpha-integrin fragment comprises at least FG-GAP modules IV to VII and a portion of FG-GAP module III of the alpha-integrin used.

7. The use as claimed in any one of claims 1 to 6, characterized in that the alpha-integrin fragment originates from an alpha-integrin selected from the integrins α1, α2, α3, α4, α5, α6, α7, α8, α9, α10, α11, αD, αE, αL, αM, αX, αIIb or αV.

8. The use as claimed in claim 7, characterized in that the alpha-integrin fragment originates from an alpha-integrin selected from the integrins α5, αV or αIIb.

9. The use as claimed in claim 8, characterized in that the alpha-5-integrin fragment extends between positions 231 and 517 (taking account of the presence of the signal peptide) or positions 190 to 476 (not taking account of the presence of the signal peptide).

10. The use as claimed in claim 8, characterized in that the αV-integrin fragment extends between positions 211 and 495 (taking account of the presence of the signal peptide) or positions 181 to 465 (not taking account of the presence of the signal peptide).

11. The use as claimed in claim 8, characterized in that the αIIb-integrin fragment extends between positions 224 and 508 (taking account of the presence of the signal peptide) or positions 193 (G residue) to 477 (Q residue) of αIIb-integrin.

12. The use as claimed in any one of claims 1 to 11, characterized in that the alpha-integrin fragment comprises at least one amino acid sequence selected from the sequences SEQ ID No. 1, SEQ ID No. 2 and SEQ ID No. 3 in the appended sequence listing.

13. The use as claimed in any one of claims 1 to 12, characterized in that the alpha-integrin fragment comprises at least one amino acid sequence encoded by one of the nucleotide sequences selected from the sequences SEQ ID No. 4, SEQ ID No. 5 and SEQ ID No. 6 in the appended sequence listing.

14. The use as claimed in any one of claims 1 to 13, characterized in that the alpha-integrin fragment is located in the recombinant protein(s) of interest prepared according to the invention, upstream of the sequence(s) of the protein(s) of interest to be produced.

15. The use as claimed in any one of claims 1 to 14, characterized in that the recombinant protein(s) comprises (comprise) at least one endoprotease cleavage site.

16. The use as claimed in any one of claims 1 to 15, characterized in that the recombinant protein(s) comprises (comprise) at least one spacer arm.

17. The use as claimed in claim 16, characterized in that the spacer arm consists of the peptide sequence SEQ ID No. 8 in the appended sequence listing.

18. The use as claimed in claim 16, characterized in that the recombinant protein comprises at least one spacer arm encoded by the nucleic acid sequence SEQ ID No. 7 in the appended sequence listing.

19. A recombinant protein, characterized in that it comprises at least one fragment of an alpha-integrin as described in any one of claims 1 to 14 and at least one membrane protein of interest.

20. The recombinant protein as claimed in claim 19, characterized in that the protein of interest is a G protein-coupled receptor.

21. The recombinant protein as claimed in claim 20, characterized in that the G protein-coupled receptor is selected from vasopressin and oxytocin receptors (V1a, V2, OTR), leukotriene receptors (BLT1, BLT2, CysLT1, CysLT2), adrenergic receptors (beta-3), cannabinoid receptors (CB1), chemokine receptors (CCR5, CXCR4), the angiotensin II AT1 receptor, the bradykinin B2 receptor.

22. The recombinant protein as claimed in any one of claims 19 to 21, characterized in that it comprises at least one sequence of 6 histidine residues (6xHIS tag).

23. The recombinant protein as claimed in claim 22, characterized in that the sequence of 6 histidine residues is at the C-terminal end of the protein.

24. The use of at least one fragment of a nucleotide sequence coding for at least one fragment of an alpha-integrin as described in any one of claims 1 to 14, in the construct of a nucleotide sequence coding for at least one recombinant protein of interest as described in any one of claims 19 to 23.

25. A nucleotide sequence coding for at least one recombinant protein of interest as described in any one of claims 19 to 23.

26. A vector comprising a nucleotide sequence as described in claim 25.

27. A cell, with the exception of a mammalian cell, into which a nucleotide sequence as described in claim 25 or a vector as described in claim 26 has been introduced.

28. A method for producing at least one protein of interest, characterized in that, in a first step, there is introduced into a cell, with the exception of a mammalian cell, a nucleotide sequence coding for at least one recombinant protein of interest, as described in claim 25, and in that, in a second step, the cell is placed under conditions which allow the expression of the recombinant protein(s) of interest.

29. The method as claimed in claim 28, characterized in that it furthermore comprises an additional step during which the recombinant protein(s) of interest is (are) cut by the action of an endoprotease.

30. The method as claimed in either one of claims 28 and 29, characterized in that it furthermore comprises an additional step during which the recombinant protein(s) of interest, or the protein(s) of interest separated from its (their) fusion partner(s), is (are) purified.